

REMARKS

Claims 6, 8, 9 and 11-14 have been amended for clarification purposes and claims 10 and 15-32 have been canceled. New claims 33-45 have been added. These amendments are not intended to narrow the scope of these claims. The claims have been rewritten to place them in better form for examination and to further obviate the 35 U.S.C. §112 rejections set forth in the Office Action dated January 30, 2003. It is believed that none of these amendments constitute new matter. Withdrawal of these rejections is requested.

The Examiner has objected to the statement of deposit on page 37 as not containing the ATCC accession number. Upon allowance of the claims in this matter Applicant will amend the statement of deposit set forth in 37 CFR 1.801-1.809. Withdrawal of this objection is respectfully requested.

Claims 1, 17 and 19 were objected to by the Examiner for failing to recite the complete ATCC accession number. As mentioned above, upon allowance of the claims in this application, the deposit will be made with American Type Culture Collection at which time the claims will then be amended with the Accession Number. Withdrawal of this objection is requested.

Claims 6, 8-11, 17-25 and 28-32 are rejected under 35 U.S.C. §112, second paragraph as being indefinite. Specifically, claim 6 is rejected for the recitation of "wherein said plant is male sterile". Claim 6 has been amended to state that the plant has been "detasseled". Withdrawal of this rejection is respectfully requested.

Claim 8 is rejected for improper antecedent basis. Applicant has amended claim 8 as suggested by the Examiner.

Claim 9 is rejected for the recitation "is capable of expressing". Applicant has amended claim 9 as suggested by the Examiner.

The Examiner has rejected claims 10, 24 and 30. Applicant has canceled claims 10, 24 and 30.

Claim 11 is rejected for improper dependency. Applicant has amended claim 11 as suggested by the Examiner.

Claims 17 and 18 are rejected for failing to recite the steps for identifying plants with decreased vigor. Claims 17 and 18 have been canceled.

Claims 19-25 are rejected as indefinite because the metes and bounds of what is retained in "2JK221-derived". Applicant has canceled claims 19-25.

Claims 20, 23, 25, and 29 are rejected in the recitation of several terms lacking comparative basis. Applicant has canceled claims 20, 23, 25 and 29.

Claim 28 is rejected as lacking antecedent basis. Applicant has canceled claim 28.

Claim 31 is rejected as indefinite. Claim 31 has been canceled. Withdrawal of these rejections is respectfully requested.

Claims 1-32 are rejected under 35 U.S.C. §112, first paragraph for enablement. Upon allowance of the claims in this application, the deposit will be made with American Type Culture Collection. As stated in the specification on page 37, the seed deposit is being maintained by Agrigenetics Inc., d/b/a Mycogen Seeds at their Olivia, Minnesota facility. The deposit will be available to the Commissioner during the pendency of this application and upon allowance of any claims, deposit of the corn seed will be made with the American Type Culture Collection.

The undersigned avers that:

- a) access to the invention will be afforded to the Commissioner during the pendency of the application;
- b) all restrictions upon availability to the public will be irrevocably removed upon the granting of a patent;
- c) the deposit will be maintained in a public depository for a period of 30 years or 5 years after the last request or for the enforceable life of the patent, whichever is longer;
- d) a test of the viability of the biological material at the time of deposit; and
- e) the deposit will be replaced if it should ever become inviable or when requested by ATCC.

Accordingly, withdrawal of these rejections is requested.

Claim 6 is rejected under 35 U.S.C. §112, first paragraph for enablement. Applicant has amended claim 6. Withdrawal of this rejection is respectfully requested.


Claims 17 and 18 are rejected under 35 U.S.C. §112, first paragraph for enablement. Applicant has canceled claims 17 and 18. Withdrawal of this rejection is respectfully requested.

Claims 12-16 and 19-32 are rejected under 35 U.S.C. §112, first paragraph as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has amended claims 12-14 and canceled claims 15, 16 and 19-32 in favor of new claims 33-45. Withdrawal of this rejection is respectfully requested.

Claims 12-16, 19-25 and 29-32 are rejected under 35 U.S.C. §102(b) as anticipated by or, in the alternative, under 35 U.S.C. §103(a) as obvious over Arthur, (U. S. Patent 5,723,739). Applicant submits that there are numerous differences between the '739 patent and the present invention. Some of the differences include the fact that the present invention has a plant height of 198 cm as compared to 242.8 cm for the '739 patent. The ear height of the present invention is 60 cm versus 95.8 for the '739 patent. Withdrawal of this rejection is respectfully requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**AMENDED CLAIMS.**"

In view of the above amendments and remarks, it is submitted that the claim satisfies the provisions of 35 U.S.C. §§102, 103 and 112 and is not obvious over the prior art. Reconsideration of this application and early notice of allowance is requested.

RESPECTFULLY SUBMITTED,					
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Attachments: Marked-Up Copies of Claims

AMENDED CLAIMS

Please cancel claims 10 and 15-32.

Please amend claims 6, 8, 9 and 11.

Please add new claims 33-45 as shown below:

1. (ORIGINAL) Seed of corn inbred line designated 2JK221, representative seed of said line having been deposited under ATCC Accession No. _____.
2. (ORIGINAL) A corn plant, or parts thereof, produced by growing the seed of claim 1.
3. (ORIGINAL) Pollen of the plant of claim 2.
4. (ORIGINAL) An ovule of the plant of claim 2.
5. (ORIGINAL) A corn plant, or parts thereof, having all of the physiological and morphological characteristics of the corn plant of claim 2.
- a₁ 6. (CURRENTLY AMENDED) The corn plant of claim 2, wherein said plant is male sterile detasseled.
7. (ORIGINAL) A tissue culture of regenerable cells from the corn plant of claim 2.
- a₂ 8. (CURRENTLY AMENDED) A tissue culture according to claim 7, ~~the cells or protoplasts of the tissue culture being from a tissue~~ wherein the tissue culture is selected from the group consisting of leaves, pollen, embryos, roots, root tips, anthers, silks, flowers, kernels, ears, cobs, husks, and stalks.
9. (CURRENTLY AMENDED) A corn plant regenerated from the tissue culture of claim 7, wherein the regenerated plant ~~is capable of expressing~~ has all the morphological and physiological characteristics of inbred line 2JK221.
10. (CANCELED) A corn plant with all of the physiological and morphological characteristics of corn inbred 2JK221, wherein said corn plant is produced by a tissue culture process using the corn plant of claim 5 as the starting material for such a process.
- a₃ 11. (CURRENTLY AMENDED) A method for producing a hybrid corn seed comprising crossing a first inbred parent corn plant with a second inbred parent corn plant and harvesting the resultant hybrid corn seed, wherein said first inbred

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parent corn plant or ~~second said parent~~ said second parent corn plant is the corn plant of claim 2.

12. (CURRENTLY AMENDED) A E_1 hybrid corn seed produced by the method of claim 11.
13. (CURRENTLY AMENDED) A E_1 hybrid corn plant, or parts thereof, produced by growing said hybrid corn seed of claim 12.
14. (CURRENTLY AMENDED) A method of producing a corn seed produced by growing said corn plant of claim 13 and harvesting the resultant corn seed.
15. (CANCELED) An F_1 hybrid seed produced by crossing the inbred corn plant (CANCELED) according to claim 2 with another, different corn plant.
16. (CANCELED) A hybrid corn plant, or its parts, produced by growing said hybrid corn seed of claim 15.
17. (CANCELED) A method for producing inbred 2JK221, representative seed of which have been deposited under ATCC Accession No. _____, comprising:
 - a) planting a collection of seed comprising seed of a hybrid, one of whose parents is inbred 2JK221, said collection also comprising seed of said inbred;
 - b) growing plants from said collection of seed;
 - c) identifying inbred parent plants;
 - d) controlling pollination in a manner which preserves the homozygosity of said inbred parent plant; and
 - e) harvesting the resultant seed.
18. (CANCELED) The process of claim 17 wherein step ©) comprises identifying plants with decreased vigor.
19. (CANCELED) A method for producing a 2JK221-derived corn plant, comprising:
 - a) crossing inbred corn line 2JK221, representative seed of said line having been deposited under ATCC accession number _____, with a second corn plant to yield progeny corn seed; and
 - b) growing said progeny corn seed, under plant growth conditions, to yield said 2JK221-derived corn plant.

20. (CANCELED) A 2JK221-derived corn plant, or parts thereof, produced by the method of claim 19, said 2JK221-derived corn plant expressing a combination of at least two 2JK221 traits selected from the group consisting of: a relative maturity of approximately 80 to 108 days, high yield, above average stalk strength, above average test weight, above average stay green, good stalk lodging resistance, and adapted to the Central Corn Belt, Northeast, Southeast, Southcentral, Southwest or Western regions of the United States.
21. (CANCELED) The method of claim 19, further comprising:
 - c) crossing said 2JK221-derived corn plant with itself or another corn plant to yield additional 2JK221-derived progeny corn seed;
 - d) growing said progeny corn seed of step c) under plant growth conditions, to yield additional 2JK221-derived corn plants; and
 - e) repeating the crossing and growing steps of c) and (d) from 0 to 7 times to generate further 2JK221-derived corn plants.
22. (CANCELED) A further 2JK221-derived corn plant, or parts thereof, produced by the method of claim 21.
23. (CANCELED) The further 2JK221-derived corn plant, or parts thereof, of claim 22, wherein said further 2JK221-derived corn plant, or parts thereof, express a combination of at least two 2JK221 traits selected from the group consisting of: a relative maturity of approximately 80 to 108 days, high yield, above average stalk strength, above average test weight, above average stay green, good stalk lodging resistance, and adapted to the Central Corn Belt, Northeast, Southeast, Southcentral, Southwest or Western regions of the United States.
24. (CANCELED) The method of claim 19, still further comprising utilizing plant tissue culture methods to derive progeny of said 2JK221-derived corn plant.
25. (CANCELED) A 2JK221-derived corn plant, or parts thereof, produced by the method of claim 24, said 2JK221-derived corn plant expressing a combination of at least two 2JK221 traits selected from the group consisting of: a relative maturity of approximately 80 to 108 days, high yield, above average stalk strength, above average test weight, above average stay green, good stalk

lodging resistance, and adapted to the Central Corn Belt, Northeast, Southeast, Southcentral, Southwest or Western regions of the United States.

26. (CANCELED) The corn plant, or parts thereof, of claim 2, wherein the plant or parts thereof have been transformed so that its genetic material contains one or more transgenes operably linked to one or more regulatory elements.
27. (CANCELED) A method for producing a corn plant that contains in its genetic material one or more transgenes, comprising crossing the corn plant of claim 26 with either a second plant of another corn line, or a non-transformed corn plant of the line 2JK221, so that the genetic material of the progeny that result from the cross contains the transgene(s) operably linked to a regulatory element.
28. (CANCELED) Corn plants, or parts thereof, produced by the method of claim 27.
29. (CANCELED) A corn plant, or parts thereof, wherein at least one ancestor of said corn plant is the corn plant of claim 2, said corn plant expressing a combination of at least two 2JK221 traits selected from the group consisting of: a relative maturity of approximately 80 to 108 days, high yield, above average stalk strength, above average test weight, above average stay green, good stalk lodging resistance, and adapted to the Central Corn Belt, Northeast, Southeast, Southcentral, Southwest or Western regions of the United States.
30. (CANCELED) A method for developing a corn plant in a corn plant breeding program using plant breeding techniques which include employing a corn plant, or its parts, as a source of plant breeding material comprising: using the corn plant, or its parts, of claim 2 as a source of said breeding material.
31. (CANCELED) The corn plant breeding program of claim 30 wherein plant breeding techniques are selected from the group consisting of: recurrent selection, backcrossing, pedigree breeding, restriction fragment length polymorphism enhanced selection, genetic marker enhanced selection, and transformation.
32. (CANCELED) A corn plant, or parts thereof, produced by the method of claim 30.